

### **REMARKS**

This Amendment is in response to the Final Office Action dated April 12, 2010. Applicant respectfully requests reconsideration and allowance of all pending claims in view of the above-amendments and the following remarks.

#### **I. CLAIM REJECTIONS UNDER 35 U.S.C. §112 - CLAIM 23**

##### **A. “The Terminal”**

Claim 23 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite with respect to “the terminal”.

Accordingly, Applicant has amended claim 23 to provide proper antecedent basis for the terminal.

Applicant respectfully requests that the proposed amendment be entered after the final rejection since this amendment is made for formality reasons only and raises no new issues.

##### **B. Claim 23 is Fully Supported By the Written Description**

Claim 23 was rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement. Specifically, the Office Action states that the specification fails to support,

“a dependency unit and said dependency unit being an access unit.”

##### **1. “Dependency Unit”**

As Applicant described in its prior response, claim 23 is fully supported by the original specification.

For example the first paragraph on page 1 of the specification states:

More specifically, the invention relates to the optimisation of the processing of these elementary stream units when the latter are dependent from, or related to, one or several other stream units. (Emphasis added).

Any person of ordinary skill in the art would understand that the above sentence clearly supports the notion of a “dependency unit”, since the sentence clearly describes that some of the elementary stream units depend from other stream units.

Further, the term “dependency” is used throughout the entire specification. For example, page 17, line 13-16 states,

The stream will indicate for each of these Access Units a dependency with respect to a stream on which it depends.

Further, page 17, lines 16-23 describes,

This principle is illustrated by Figure 1. The stream unit 11 of a dependent stream 10 normally includes a header (SLHeader) 111 and a data field (SL payload) 112. The header 111 includes, in particular, two pointers, Dep1 and Dep2, which define the dependency links 12 and 13 with stream units 141 and 142, respectively, of a base stream 14, which must be known in order to process the stream unit 11. (Emphasis added).

Indeed,

- on page 25 of the application as filed (the first lines of the appendix), a stream unit is defined as being an access unit (see also, page 16, line 29 to page 18, line 22, for example);
- the “designates” term is utilized in claim 12.

More specifically, on page 25 of the patent application as filed, a definition of the stream unit is given:

Stream Unit (AU: Access Unit)

A data unit that is accessible individually in an elementary stream. A stream unit (or access unit) is the smallest entity to which a time data element can be attributed.

This clearly demonstrates that along the specification, and the claims, the “stream unit” is in fact an “access unit”. This is also described on page 17, lines 5 and 14.

Moreover, the “dependency” term is used all along the specification.

## II. CLAIM REJECTIONS – 35 USC § 103

Claims 18-20 were rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over **Pierre**, U.S. Patent No. 7,000,245 in view of **Putzolu**, U.S. Patent No. 6,205,140 and **Furukawa**, U.S. Publication No. 2002/0071434.

Claims 1-15, 17, 21 and 22 were rejected under 35 U.S.C. 103(a) as being allegedly unpatentable over **Pierre**, U.S. Patent No. 7,000,245 in view of **Putzolu**, U.S. Patent No. 6,205,140 and

**Furukawa**, U.S. Publication No. 2002/0071434 as applied to claims 18-20 above, and further in view of **Okura**, U.S. Publication No. 2001/0027468.

**A. Short Summary of Arguments**

- An "access unit" has a real technical meaning as described in the MPEG-4 System standard. So it cannot be interpreted "broadly".
- Access units are not physical data packets (like in the RTP protocol). So "access unit" and "data packet" are not the same thing in an analysis under 35 U.S.C. §102(b).
- The Examiner believes that the document "Putzolu" comprises an incentive to be combined with the document "Pierre". This is not true. If the two documents were combined, the skilled person in the art would only obtain a system in which the streams would be synchronised "globally", and not "access unit" by "access unit".
- Furthermore, the Examiner mischaracterizes Putzolu in an attempt to make the rejection: when explaining an alleged motivation to combine, the Examiner replaces the term "component" used by Putzolu by the term "data packets", which have clearly different meanings. Applicant believes that the Examiner improperly considers that stream units and streams are the same thing (because it is convenient for his demonstration under 35 U.S.C. §103).

**B. File Situation**

The present disclosure relates to data transmission in the form of data stream(s), each made up of elementary stream units (or packets). An exemplary aim of the disclosure is to optimize processing of these stream units when they are dependent of preceding stream units in the same stream, or in another stream.

In known techniques, an important difficulty is that of synchronization, when the transmission is made in an asynchronous way. In this case indeed, some stream units emitted after can be received before previously emitted ones. In such a case, one cannot process a received unit of stream, if it is dependent on a preceding unit of the stream not yet received.

An aspect of the present disclosure proposes a new and inventive approach, by synchronizing the access units. The streams themselves are not synchronized. The synchronization of the streams themselves is realized, for example, by the "Object Descriptor" of a stream which is dedicated to the description of the scene.

### C. Position of the Examiner

In this sixth official action, the position of the Examiner has not changed. Indeed, the Examiner believes that the arguments previously presented in response to the previous official notification are not persuasive.

More specifically, the Examiner believes that the term “access unit” is a broad term that is not defined in the claim. In other words, the Examiner believes that the “access unit” has no particular technical meaning and should be interpreted broadly (as for example a single data packet).

The Examiner also believes that the document "Putzolu" comprises an incentive to be combined with the document "Pierre" who was recently cited by the Examiner in the preparation of the fifth official notification.

The Examiner considers that the sentence from Putzolu, col. 1, lines 55-61, *“It would therefore be advantageous to provide a method of communication (or association) to dynamically describe the relationships (or dependencies) among the components comprising a media presentation, thereby allowing the composition of a media presentation to be varied in response to information that becomes available as the presentation progresses”* is a motivation to combine the “Pierre” and “Putzolu” documents.

### D. Position of the Applicant

#### 1. The Applicant does not agree with the Examiner.

Indeed, the Applicant thinks that the term “access unit” is not a broad term. More particularly, the term “access unit” is restrictively defined in the « *MPEG4 system* » standard (*Glossary and Acronyms*):

*“Access Unit (AU): A logical sub-structure of an Elementary Stream to facilitate random access or bitstream manipulation. All consecutive data that refer to the same decoding time form a single Access Unit.”*

Thus:

- a. the term "access unit" has a precise technical meaning, known to the skilled in the art, and it is therefore not possible to interpret it broadly;
- b. the "access unit" is a sub-logical structure, it cannot be considered, functionally, to a physical structure, such as an example RTP packet or file

(as described in 'Bob', column 8, line 20-38, which clarifies that the data objects are files).

This means that an “access unit” is not a packet like a RTP packet.

## 2      The Examiner Fails To Establish a Prima Facie Case of Obviousness

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.<sup>1</sup> If the Examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of non-obviousness.<sup>2</sup>

To establish a *prima facie case* of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.<sup>3</sup>

Applicant respectfully traverses the § 103 rejection because the office action has not established a *prima facie* case of obviousness.

### *a.      The cited prior art does not teach or suggest all the claim limitations.*

The cited prior art does not disclose all of the elements and limitations of claim 1.

Indeed, data objects of “**Pierre**” are not equivalent to access units of the patent application. Specifically, the Applicant will demonstrate that “access units” cannot be considered as data objects.

In fact, in column 8, lines 20 to 38, 'Pierre' discloses what the data objects are. In particular, 'Pierre' indicates that data objects are stored as files on a storage medium of mass and / or used directly (column 6).

Data objects are part of a program (column 4, lines 50 to 62) and are transmitted **cyclically** (column 4, lines 63 to 66) as part of the Carousel (The Carousel is described in column 1, line 31 to 47).

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<sup>1</sup> MPEP Sec. 2142

<sup>2</sup> Id

<sup>3</sup> Id)

Therefore, the data objects of 'Pierre' cannot be considered “access units”, nor can the “access units” of the present claim s be regarded as a kind of 'superset' of the data objects of 'Pierre'.

In fact, in the present claims, an “access unit” does not contain a sound or a picture in its entirety as described in 'Pierre'.

The interpretation that is made by the Examiner does not therefore seem appropriate on this first point. So, in fact, 'Pierre' does not meet all the limitations of the claim except “wherein said pointer is a dependency pointer...” as alleged by the Examiner in the last paragraph of page 6 of the Office action.

Indeed, as **“Pierre” does not** explicitly **disclose** that a “data object” is an “access unit”, 'Pierre' does not meet the limitation **“each of said stream or streams being made of access unit”**.

Furthermore, the access units as claimed are not transmitted cyclically as part of a Carousel.

***b.     The Office Action has not provided a valid suggestion or motivation to combine the cited references.***

Although evidence of a motivation to combine need not be found in the prior art reference themselves, if it is found in the knowledge of one of ordinary skill in the art or, in some cases, from the nature of the problem to be solved, the Office Action must do more than simply discuss the ways that the multiple prior art references can be combined to read on the claimed invention. Rather, the Office Action must point out “specific information in [the two references] that suggests the combination.”<sup>4</sup> “The Board [must] explain what specific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination”.<sup>5</sup>

In *KSR Int'l Co. v. Teleflex Inc. et.al.*<sup>6</sup>, the Court re-affirmed that:

“Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”.<sup>7</sup>

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<sup>4</sup> See *Dystar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356,1366, 80 USPQ2d

<sup>5</sup> *Id.* at 1367 (citing in re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998)

<sup>6</sup> *KSR Int'l v. Teleflex, Inc.*, 127 S.Ct. 1727.82 USPQ2d 1385 (2007)

<sup>7</sup> *Id*

Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.<sup>8</sup>

Furthermore, even if the one of ordinary skill in the art would have combined ‘Pierre’ and ‘Putzolu’, he wouldn’t have obtained the limitations of claim 1 as argued in the Office Action. Indeed, the disclosure of ‘Putzolu’ is based on RTP protocol (*see col.3, line 33*). This protocol is well known from the one skilled in the art and is using a PDU sequence number for reordering the packets.

i. Streams vs Stream Units/Access Units

Even if ‘Putzolu’ discloses in Fig. 2 (col.5, lines 1-4, 28-33, 38-44) that the dependency information included in the descriptor defines a list of media streams (not stream units or access units) needed for delivering the given media stream, the Examiner has not demonstrated why *it would have been obvious to one of the ordinary skill in the art at the time of the invention to modify Pierre's system by using descriptor of a stream unit for pointer of Putzolu.*

Indeed such a modification is not obvious. ‘Pierre’ discloses data objects which contain pictures, sound etc. Thus, the Data Objects of ‘Pierre’ are not packets or units. As the Examiner describes it, in ‘Putzolu’, the dependencies between streams (and not stream units) are described via ‘data packets’.

ii. The Examiner Mischaracterizes Putzolu by Replacing Terms Convenient for the Examiner’s Conclusions

The Examiner considers that the sentence, “*It would therefore be advantageous to provide a method of communication (or association) to dynamically describe the relationships (or dependencies) among the components comprising a media presentation, thereby allowing the composition of a media presentation to be varied in response to information that becomes available as the presentation progresses*” provides a motivation to combine documents “Pierre” and “Putzolu”. (citing Putzolu, col. 1, lines 55-61).

The Applicant respectfully disagrees. This sentence indicates that a solution is desired for

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<sup>8</sup> *Id*

providing a method for dynamically describing the relationships (or dependencies) among the components comprising a media presentation.

There is no mention of “data packets” in the sentence of “Putzolu” (but only of component). Thus the Examiner has not brought the evidence that there is a motivation for combining the two documents “Pierre” and “Putzolu”, because the Examiner has modified the “alleged” motivation by using wording from the other document.

Thus, such a modification to the wording of Putzolu, by replacing the term “component” by “data packet”, is clearly evidence that the Examiner needs more technical features for justifying the motivation to combine.

iii. Combination Would Still Fail to Achieve the Claimed invention

If the one of ordinary skill in the art would have wanted to modify ‘Pierre’, to *describe dependencies among the data packets so the arrangement of a media presentation to be varied in response to information that becomes available as the presentation progresses* (‘Putzolu’, col.1, lines 55-60) then he wouldn’t have obtained the limitation expected by the Examiner.

The one of ordinary skill in the art would rather have obtained a system in which the data objects of ‘Pierre’ would have to be ‘cut/divided’ in a set of RTP packets, such as taught by ‘Putzolu’. Indeed, ‘Putzolu’ discloses that the stream is divided into RTP packets (not any packet of any protocol). Thus the streams of ‘Pierre’ would have been cut into RTP packet, where, as described in col.5, lines 1-4, 28-33, 38-44 of ‘Putzolu’, the dependency information included in the RAP descriptor (**not any descriptor**) defines a list of media streams needed for delivering the given media stream.

The proposed modification would not have dependencies on stream **units (or access units)**.

Finally, despite the above results, even if the one of ordinary skill in the art continues modifying its previous system in view of **Furukawa**, he would not have obtained all the limitations and features of the claims.

Indeed, the pointer which is featured on paragraph §0063 of **Furukawa** is not a pointer, as such, or as recited in Applicant’s claims. Furthermore, **Furukawa** uses the term ‘urgent pointer’. So the one skilled in the art would have asked ‘**what is an urgent pointer?**’



Referring to the standard defining the header package 'TCP' (RFC793), we have a definition of this field 'urgent pointer':

TCP also provides a means to communicate to the receiver of data that at some point further along in the data stream than the receiver is currently reading there is urgent data. TCP does not attempt to define what the user specifically does upon being notified of pending urgent data, but the general notion is that the receiving process will take action to process the urgent data quickly.

Read more: <http://www.faqs.org/rfcs/rfc793.html#ixzz0Zqg20ZSF>

Thus, the one of ordinary skill in the art would have obtained a system in which the TCP packets (not the RTP ones of 'Putzolu' and furthermore not the 'data objects' of 'Pierre' would have an urgent pointer, for which, as told in the RFC793, there is no *"attempt to define what the user specifically does upon being notified of pending urgent data"*.

Even further, such an **"urgent pointer"** is not a pointer that, "points to at least one other access unit of said stream or of another stream that may have been received previously in the terminal," as recited in Applicant's claim 1.

It is important to note that neither **Putzolu** nor **Furukawa** discloses a pointer to another stream unit (or access unit). So if the Examiner is relying on **Furukawa** to disclose a pointer that is distinct from a sequence number, that pointer would not point to another stream unit (or access unit), as recited in Applicant's claims. Rather, it would constitute an 'urgent pointer' as defined above.

Thus, the proposed combination of Furukawa's "urgent pointer" would not satisfy the elements of Applicant's claims and is therefore not relevant either separately or in combination with the other references.

**c. Conclusion:**

The Applicant has demonstrated that the combination of documents proposed by the Examiner does not lead to the invention as claimed in claim 1 (or in the other independent claims for similar reasons).

In Summary,

- **"Pierre"** is not relevant toward amended claim 1 and depending claims of discussed patent application because the data objects described in **"Pierre"** are not equal nor equivalent to the streams unit (or the access units) recited in Applicant's claims.

- **“Pierre”**, in view of **“Putzolu”**, is not relevant toward amended claim 1 and the dependent claims because in order to obtain the invention recited in these claims, it is necessary to:
  - Detect the approach of **“Pierre”** was not adequate;
  - Understand that it is desirable to take into account the distinct streams, in order to simplify the processing of decoding;
  - Decide to insert pointers in the stream units themselves to allow synchronising stream units with other stream units of another stream previously received.

This is neither described nor disclosed in **“Putzolu”** nor in **Furukawa**.

For the above reasons, Applicant respectfully requests the allowance of all claims and the issuance of a Notice of Allowance.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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